



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,011	01/25/2006	Josef Baumgartner	2003P0850WOUS	9957

22116 7590 10/08/2008
SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

AKINYEMI, AJIBOLA A

ART UNIT	PAPER NUMBER
----------	--------------

2618

MAIL DATE	DELIVERY MODE
-----------	---------------

10/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,011	Applicant(s) BAUMGARTNER ET AL.	
	Examiner AJIBOLA AKINYEMI	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20, 27- 32, 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20, 27- 32, 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 30 and 31 objected to because of the following informalities: "claim 30 depend on cancelled claim 21 and claim 31 depend on claim 30". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 20, 27-29, 32 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujioka (Patent No.: US 5212373) and further in view of Wakabayashi (Pub. No.: US 2003/0178483A1).

With respect to claim 20:

Art Unit: 2618

Fujioka discloses a method for reducing the power consumption (see abstract) of a non-contact (i.e. contact-less) IC card device (20 of fig.2) i.e. mobile data memory for data transmission with a external device (i.e. external device is able to communicate (transmit/receive) with non-contact IC card through antenna (42 of fig.2) via radio wave (91 and 92 of fig. 2), therefore external device essentially functioning like read/write device) comprising: providing a battery (i.e. battery is delectable energy as applicants mentioned in the remarks, page 7, lines 13) component (6 of fig.2) for energy store and energy consuming components includes central processing unit (CPU) (31 of fig.2), read only memory (ROM 32 of fig.2), random access memory (RAM 33 of fig.2), oscillator circuits (1, 2 of fig.2), input/output circuits (34 of fig.2), modulating/demodulating circuits (41 of fig.2) and antenna circuits (42 of fig.2) for the non- contact IC device (mobile) data memory (see fig.2-4, co1.3 lines36-63); generating a first clocking signal in a first oscillator, the first clock signal having a first clock frequency (col.2, lines 18-21), controlling the first oscillator to continuously generate the first clocking signal (Fig.1, item 2); supplying the mobile data memory with electrical energy from the energy store during a cycle inactive idle mode wherein power consumption during the idle mode comprise a first power consumption magnitude cylindrically generating a second clocking signal (col.2, lines 22-24) in a second oscillator, the second clocking signal having a second clock frequency higher than the first clock frequency (col.2, lines 22-24); Fujioka did not disclose monitoring and comparing the signal level relative to detection threshold, supply the clocking signal to the demodulator. Wakabayashi disclosed monitoring a signal level corresponding to

Art Unit: 2618

frequencies emitted by the read/write device; comparing the signal level relative to a detection threshold; when the monitored signal level exceeds the detection threshold, controlling the second oscillator to generate the second clocking signal during a cyclic polling time of a polling cycle; if the monitored signal level reverts to a level below the detection threshold, switching off the second oscillator, supplying the second clocking signal to a data receiver for data reception at a data reception rate during the cyclic polling time (parag. 0081-083, 0120-0122), supplying the second clocking signal to a data demodulator during the cyclic polling time wherein the second clock frequency is sufficiently high relative to the data reception rate to oversample the data being received by the data receiver and upon a recognition of valid data, performing data demodulation by the demodulator of the received data, wherein the second oscillator is switched on in advance by a predefined time interval relative to the start of the cyclic polling time and prior to performing the demodulation of the received data, wherein power consumption during the cyclic, polling time comprise a second power consumption magnitude higher than the first power consumption magnitude, wherein the duration of the cyclic polling time is selected to reduce power consumption and increase an operating life of said at least one delectable energy store; and upon completion of the data demodulation, or a recognition of invalid data, reverting the mobile data memory to the cycle inactive idle mode. (parag. 0081-083, 0120-0122), it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for reducing the power consumption mobile data memory of contact-less IC card data transmission with read/write device (as taught by Fujioka) by incorporating the above limitation of

Art Unit: 2618

Wakabayashi to obtain actual state of switching On/Off from threshold value to identifying the read/write device and determining a correct output voltage as the end of the transmission as well as less power consumption (see parag.0038, 0100, 0101, 0128,0133).

With respect to claim 27:

Fujioka furthermore discloses the second clock frequency from a second oscillator is higher (i.e. multiple) than first clock frequency (see col.2 lines 20-25) [i.e. second clock frequency is a multiple of the first clock frequency].

With respect to claim 28:

Fujioka further discloses the second clock frequency is higher than first clock frequency (see colo2 lines 22-25).

With respect to claim 29:

Fujioka furthermore discloses the first oscillator circuits (1 of fig.2) generates first clock signal which is coupled to the CPU (31) for controlling the modulating circuits (34) for transmitting the data to the external device (see fig.2-4,col.3 lines 36-47,co1.4 lines 52-58).

With respect to claim 32 and 38:

Fujioka discloses a non-contact (i.e. contact-less) IC card device (20 of fig.2) i.e. mobile data memory for data transmission with a external device (i.e. external device is able to

Art Unit: 2618

communicate (transmit/receive) with non-contact IC card through antenna (42 of fig.2) via radio wave (91 and 92 of fig.2), therefore external device essentially functioning like read/write device) comprising: antenna circuits (42 of fig.2) for data transmitting and receiving to/from external device through antenna (42) via radio wave (91 and 92)(see fig. 2 and col.3 lines 36-48); providing a battery (i.e. battery is depletable energy) component (fig.2, item 6) to store energy for supplying direct current (see fig.2); first oscillator (fig.1, item 1) configured to continuously generate a first clocking signal (Fig.1, item 2) with a first clock frequency for a timer for the data transmitter, the first clocking signal (fig.1, item 2) having a first clock frequency, wherein the mobile data memory is supplied with electrical energy from the energy store during a cycle inactive idle mode, wherein power consumption during the idle mode comprises a first power consumption magnitude (fig.1, item 6). Fujioka disclosed a second clock generating means that is able to generate a higher frequency (col.2, lines 22-23). This means that it is inherent to have a second oscillator which produce the second clocking signal.

Fujioka did not disclose a control means responsive to a detector configured to monitor a signal level and demodulator that comprised second power consumption.

Watabayashi disclosed the control unit (fig.3, item 61) include a comparator configured to compare the signal level relative to a detection threshold so that when the monitored signal level exceeds the detection threshold, the second oscillator is controlled to generate the second clocking signal during a cyclic polling time of a polling cycle, and if the monitored signal level reverts to a level below the detection threshold, the second oscillator is switched off, wherein the data receiver is coupled to receive during the

Art Unit: 2618

cyclic polling time the second clocking signal to perform data reception at a data reception rate, wherein the second clock frequency is sufficiently high relative to the data reception rate to oversample the data being received; and a data demodulator coupled to receive during the cyclic polling time the second clocking signal to perform data demodulation upon a recognition of valid data, wherein the second oscillator is switched on in advance by a predefined time interval relative to the start of the cyclic polling time and prior to the demodulator performing the demodulation of the received data wherein power consumption during the cyclic polling time comprises a second power consumption magnitude higher than the first power consumption magnitude, wherein the duration of the cyclic polling time is selected to reduce power consumption and increase an operating life of said at least one depletable energy store, and wherein upon a completion of the data demodulation, or a recognition of invalid data, the control unit is configured to revert the mobile data memory to the cycle inactive idle mode (parag. 0081-083, 0120-0122), it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for reducing the power consumption mobile data memory of contact-less IC card data transmission with read/write device (as taught by Fujioka) by incorporating the above limitation of Wakabayashi to obtain actual state of switching On/Off from threshold value to identifying the read/write device and determining a correct output voltage as the end of the transmission as well as less power consumption (see parag.0038, 0100, 0101, 0128,0133).

Art Unit: 2618

5. Claim(s) 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujioka et al as modified by Wakabayashi as applied claim 20 above and further in view of RFID standards (ISO 1800-4 part 4, updated January 31, 2002 by Steve Halliday).

With respect to claim 30 and 31:

Fujioka discloses all the limitations with Wakabayashi as applied claim 20 above except an identification system based on the ISO/IEC 18000 standard for operation in an ISM frequency band; and the identification system is operated in an ISM frequency band of 2.45 GHz. However, RFID ISO standard teaches ISO 18000 identification systems is operated in the 2.45GHz industrial, scientific and medical (ISM) frequency bands.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made method a method for reducing the power consumption of a non-contact (i.e. contact less) IC card device i.e. mobile data memory for data transmission with a external device and higher clock frequency is used for data demodulation of a received signal (as taught by Fujioka) by incorporating polling command for determining a polling time for detecting the operation (i.e. detecting the identifying of presence) of the read/write device of a specific time interval (as taught by Wakabayashi) by applying the standardization of ISO 18000 radio frequency identification system which can be operated 2.45GHz frequency bands as taught by ISO 18000 standards to identified easily for transmitting/receiving data signal by the read/write tag.

Response to Arguments

6. Applicant's arguments with respect to claims 20, 32 and 38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AJIBOLA AKINYEMI whose telephone number is (571)270-1846. The examiner can normally be reached on monday- friday (8.30-5pm) Est.

Art Unit: 2618

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, YUWEN PAN can be reached on (571) 272-7855. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AA
/Yuwen Pan/
Primary Examiner, Art Unit 2618